

Abstract

A brazing method for, through melting of a connecting agent then solidification of this connecting agent, achieving a mechanical and electrical connection between at least one first face (2), of a first piece (200), and at least one second face (3), of a second piece (300), said first piece (200) and said second piece (300) being constituents of an electro-technical device (4),

- the first piece (200) being made starting from

- at least one first metallic material (202) in the form of a foil (201) of a given thickness, this first material (202) comprising a main constituent (203), referred to as the first main constituent (203), said first metallic material having a defined temperature of complete solidification (solidus) (T2), referred to as the first complete solidification temperature (T2), and
- at least one dielectric interfacing material,

- the second piece (300), on the one hand, having, in a direction substantially orthogonal to the second face (3), a dimension (D) appreciably greater than the thickness (E) of the first metallic material (202) in foil form (201) making up the first piece (200), and, on the other hand, being composed of a metallic material (302), referred to as the second metallic material (302), comprising a main constituent (303), referred to as the second main constituent (303), at least substantially similar to the first main constituent (203) of the first metallic material (202), said second metallic material (302) likewise having a temperature of complete solidification (solidus) (T3), also defined, referred to as the second temperature of complete solidification (T3),

this brazing method being characterised in that used is a connecting agent made up beforehand of a metallic material (102) which, referred to as the third metallic material (102), comprises a main constituent (103), referred to as the third main constituent (103), at least substantially similar to the first main constituent (203), this third metallic material (102) having however a temperature of complete melting (liquidus) (T1) which is lower, on the one

hand, than the first complete solidification temperature (T_2), and, on the other hand, than the second complete solidification temperature (T_3).